



**DHRUV FABROTECH®**

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## LAB SCALE FERMENTER



### TECHNICAL SPECIFICATIONS & SCOPE OF SUPPLY

#### 3-lit Autoclavable Glass fermenter

##### 1. Fermentor vessel :-

- Borosilicate (pyrex) glass vessel
- Total capacity 5 litres
- Working volume range 1 litres (minimum) to 3.5 litres (maximum)
- Stainless steel support plates (top & bottom) with ports & fittings for the following :-
  - Air Inlet deep pipe
  - Air Vent
  - Inoculation port cum sampling

- Thermowell
- Media in
- Addition port(s)
- Spare port(s) with blind plug(s)

## **2. Agitation (stirring) arrangement :-**

- Magnetic stick stirrer along with heavy duty motor.
- Motor speed variation, range 100 – 1500 RPM
- Digital RPM meter for motor speed.

## **3. Aeration control system:-**

- Air compressor
- Air flow rotameter with needle valve for manual flow control setting
- Autoclavable air filter capsules, rating 0.2 micron, for air inlet & exhaust

## **4. Cooling-based temperature measurement & control system:-**

- RTD Pt-100 temperature sensor
- Microprocessor-based digital on/off type temperature controller for cold water control
- Control range: From ambient temperature up to 50°C

## **5. Automatic pH control system: -**

- Autoclavable PH sensor with connecting cable (vessel mounted), Controller (panel mounted)
- Peristaltic pump for pH adjustment (3 lit per hour) for Acid/Base

## **6. Control panel console:-**

- Powder coated control panel console with electrical switchgear, panel accessories & mounting arrangement for various panel-mounted instruments
- Suitable for tabletop mounting adjacent to fermenter

## 7. Mounting arrangement:-

- Sturdy powder coated benchtop mounting stand for the complete system, dimensions 25" x 14"(approx.)

### This model is suitable for the following applications:-

- College-level experiments, demonstration, practical
- Research work on the following :-  
Microbial cultures (bacteria, yeasts, actinomycetes, fungi)
- Low, medium or high conditions of the following :-  
Broth viscosity, broth density & cell density

### Models Available :-

| SR.NO. | Model Name                               | Full Capacity | Model type     |
|--------|------------------------------------------|---------------|----------------|
| 1      | Autoclavable Lab Glass Fermenter (ALF-2) | 02 lits       | Basic, Premium |
| 2      | Autoclavable Lab Glass Fermenter (ALF-3) | 03 lits       | Basic, Premium |
| 3      | Autoclavable Lab Glass Fermenter (ALF-5) | 05 lits       | Basic, Premium |